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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Alan R. Atemboski

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PATENT-SEA

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EXAMINER

PRICE, CARL D

ART UNIT

PAPER NUMBER

3749

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/616,412	<b>Applicant(s)</b> ATEMBOSKI ET AL.	
	<b>Examiner</b> Carl D. Price	<b>Art Unit</b> 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08/11/2008 (RCE).
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 46-72, 81-118, 122-125 and 128-146 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 46-72, 81-118, 122-125, 128-146 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### **Continued Examination Under 37 CFR 1.114**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on **08/11/2008** has been entered.

Claims **46-72, 81-118, 122-125** and **128-146** are pending.

### **Response to Arguments**

Applicant's arguments filed **08/11/2008** have been fully considered but they are not persuasive.

Applicant has amended certain ones of the claims to be of a scope not previously considered. Consistent with applicant's argument that the prior art relied on in the previous office action fail to show, disclose and/or teach certain aspects of applicant's invention now recited in the claims filed on **08/11/2008**, applicant has amended the claims to include at least the following:

#### **46. (Currently Amended)**

A burner assembly for burning in a direct vent fireplace a fuel gas from a gas source comprising:

**a burner pan;**

a burner body **secured to the burner pan with at least one fastener, the burner body** having upper and lower portions, the lower portion of the burner body sealably **coupled** to the base and having first and second recessed gas distribution chamber portions formed therein, the upper portion of the burner body having a contoured surface with a plurality of integral peaks and valleys, the contoured surface being shaped to simulate a generally planar portion with a plurality of simulated coal members arranged in a simulated ember bed, the burner body having gas distribution apertures extending

from the lower portion to the simulated coal members of the contoured surface, a first set of the gas distribution apertures extending through the burner body to the first recessed gas distribution chamber portion, and a second set of distribution apertures extending through the burner body to the second recessed gas distribution chamber portion, the gas distribution apertures being positioned to direct a flow of the fuel gas to the contoured upper surface for ignition, the first set of gas distribution apertures being selectively grouped together and configured with the first recessed gas distribution chamber portion to provide a first, gas pressure in the first .gas distribution chamber portion to control a first flow rate of fuel gas through the burner body for ignition above a first portion of the simulated coal members and a first flame characteristic in the fireplace, and the second set of gas distribution apertures being selectively grouped together and configured with the second recessed gas distribution chamber portion to provide a second gas pressure in the second gas distribution chamber portion different to control a second flow rate of fuel gas through the burner body for ignition above a second portion of the simulated coal members away from the first portion of the simulated coal members and a second flame characteristic in the direct vent fireplace unit different from the first flame characteristic, wherein the first and second flow rates of fuel and the resulting first and second flame characteristics provide flames with color, movement and different sizes above different portions of the simulated coal bed and simulate a natural wood burning fire; and

simulated logs removeably supported on the burner body, wherein the burner body provides a simulated bed of glowing embers underneath the simulated logs and wherein the burner body is configured to distribute the fuel gas at selected rates and volumes to provide the flames about the simulated logs and above adjacent to the simulated ember bed.

#### **50. (Currently Amended)**

A burner assembly for burning a fuel gas from a gas source, comprising:  
a base;

a non-metallic burner body having a lower portion sealably coupled to the base to form a recessed interior gas distribution chamber configured to receive fuel gas therein from the gas source, an upper portion of the burner body having a contoured surface with a plurality of integral peaks and valleys shaped as simulated coal members, and the contoured surface having a substantially flat portion forming a simulated-log-support surface adjacent to the simulated coal members, the simulated-log-support surface having an alignment guide, the upper portion of the burner body having gas distribution apertures extending from the interior gas distribution chamber to the contoured surface, the gas distribution apertures having different heights and being positioned to direct the fuel gas to the contoured surface for ignition, the burner body being constructed of a material that glows at selected color variations in the simulated coal members to simulate a burning and glowing coal ember bed in the base of a fire when the fuel gas is ignited adjacent to the contoured surface; and

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a simulated log **removably** supported by the simulated-log-support surface adjacent to the simulated coal members, the alignment guide being configured to align the simulated-log relative to the upper portion of the burner body.

#### **55. (Currently Amended)**

A burner assembly for burning a fuel gas, comprising: a burner pan;

a spacer; and

**an adhesive adhered to the spacer;**

a burner body having upper and lower portions, the lower portion of the burner body sealably coupled to the burner pan and to the spacer, the lower portion of the burner body having edge portions separate from the spacer **and the adhesive** and spaced apart from the burner pan with the lower portion being supported apart from the burner pan by the spacer forming an interior gas distribution chamber between the burner pan and the burner body, the interior gas distribution chamber positioned to receive a flow of fuel gas therein, the upper portion of the burner body having a contoured surface forming simulated coal members, the upper portion of the burner body having a plurality of gas distribution apertures extending from the interior gas distribution chamber to the contoured surface, the plurality of gas distribution apertures being positioned to direct a flow of the fuel gas from the interior gas distribution chamber to the contoured surface for ignition, the burner body being constructed of a material that glows at selected color variations in the simulated coal members to simulate a burning and glowing coal ember bed in the base of a fire when the fuel gas is ignited adjacent to the contoured surface, **wherein the interior gas distribution chamber and the gas distribution apertures are sized and configured to maintain a desired gas pressure distribution within the gas distribution chamber during use to control the flow rate of the fuel through the burner apertures to provide selected flame characteristics at different portions of the simulated coal bed to provide flames with color, movement and different sizes above different portions of the simulated coal members and simulate a natural wood burning fire.**

#### **64. (Currently Amended)**

A burner assembly for burning a fuel gas from a gas source, comprising: a base; a spacer adjacent to the base;

a burner body having upper and lower portions, the burner body being coupled to the spacer with the lower portion of the burner body being spaced apart from the base by the spacer to form an interior gas distribution chamber therebetween and configured to receive a flow of fuel gas from the gas source, the lower portion of the burner body having a flat undersurface portion generally parallel to the base of the burner pan, the lower portion having a recessed underportion spaced apart from the burner pan's base and recessed from the burner body's flat undersurface portion, the recessed underportion defining a portion of the gas distribution chamber, the upper portion of the burner body having a contoured surface forming simulated

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burning members, the burner body having a plurality of gas distribution apertures extending therethrough from the lower portion to the contoured surface of the upper portion, at least the upper portion of the burner body being constructed of a material that glows at selected color variations when the fuel gas is ignited adjacent to the contoured surface, **wherein the interior .gas distribution chamber and the .gas distribution apertures are sized and configured to maintain a desired .gas pressure distribution within the .gas distribution chamber during use to control the flow rate of the fuel through the .gas distribution apertures to provide selected flame characteristics at different portions of the simulated coal bed to provide flames with color, movement and different sizes above different portions of the simulated burning members and simulate a natural wood burning fire.**

#### **70. (Currently Amended)**

A burner assembly for burning a fuel gas from a gas source, comprising: a base; a burner body having upper and lower portions, the burner body being spaced apart from the base forming a sealed interior gas distribution chamber therebetween, the interior gas distribution chamber having first and second chamber portions in fluid communication with each other and positioned to receive the fuel gas therein, gas flow distribution surfaces extending between the first and second chamber portions and configured to direct at least a portion of the fuel gas from the first chamber portion to the second chamber portion **wherein a first gas pressure in the first chamber portion is greater than a second gas pressure in the second chamber portion,** the upper portion of the burner body having a contoured surface with a plurality of integral peaks and valleys, the burner body having a plurality of gas distribution apertures extending therethrough from the lower portion to the contoured surface of the upper portion, the plurality of gas distribution apertures being positioned to direct a flow of the fuel gas to the contoured surface of the upper portion of the burner body for ignition, a first set of gas distribution apertures and the first chamber portion being configured to provide **the first gas pressure and** a first flow rate of fuel gas through the burner body for ignition and a first flame characteristic, and a second set of gas distribution apertures and the second chamber portion being configured to provide the **second pressure and** a second flow rate of fuel gas through the burner body for ignition and a second flame characteristic different from the first flame characteristic, at least a portion of the upper surface of the burner body being constructed of a non-metallic material that glows at selected color variations when the fuel gas is ignited adjacent to the contoured surface **that in combination with the first and second flame characteristics provide flames with color, movement and different sizes above different portions of the simulated coal members and simulate a natural wood-burning fire.**

#### **81. (Currently Amended)**

A burner assembly for burning a fuel gas from a gas source, comprising:  
a base coupled to a fuel gas inlet;

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a burner body having upper and lower portions, the lower portion of the burner body being sealably coupled to the base to form an interior gas distribution chamber therebetween, the lower portion of the burner body having a first chamber portion and a second chamber portion configured to allow the flow of fuel gas to move from the first chamber portion to the second chamber portion, the upper portion of the burner body having a contoured surface with a plurality of peaks and valleys to form a plurality of simulated coal members, a portion of the contoured surface forming a simulated-log support portion to removably support one or more separate simulated logs adjacent to the simulated coal members, the burner body having a plurality of gas distribution apertures extending therethrough from the lower portion to the contoured surface of the upper portion adjacent to the simulated coal members and adjacent to the simulated-log support portion, the plurality of gas distribution apertures being positioned to direct a flow of the fuel gas to the contoured surface of the upper portion of the burner body for ignition, the plurality of fuel distribution apertures and the first and second chamber portions being configured to maintain a first gas pressure in the first chamber portion to provide a first flow rate of fuel gas through a first group of the .gas distribution apertures, and a second .gas pressure in the second chamber portion to provide a second flow rate of fuel gas through a second group of the .gas distribution apertures, wherein the second flow rate is less than the first flow rate to provide smaller flames adjacent to a first portion of the simulated coal members, the burner body being constructed of a material that glows at selected color variations in the simulated coal members when the fuel gas is ignited adjacent to the contoured surface to provide flames with color, movement and different sizes above different portions of the simulated coal members and simulate a natural wood burning fire.

### **87. (Currently Amended)**

A burner assembly for use in a gas fireplace unit and for burning a fuel gas from a gas source, the burner assembly being connectable to a base with a gas inlet aperture therein, comprising a non-metallic burner body and at least one simulated log thereon, the burner body having upper and lower portions, the lower portion of the burner body sealably coupleable to the base and having first and second recessed gas distribution chamber portions formed therein, the upper portion of the burner body having a contoured surface with a plurality of integral peaks and valleys, the contoured surface being shaped to simulate a generally planar portion with a plurality of simulated coal members arranged in a simulated ember bed, the burner body having gas distribution apertures extending from the lower portion to the contoured surface, a first set of the gas distribution apertures extending through the burner body to the first recessed gas distribution chamber portion, and a second set of distribution apertures extending through the burner body to the second recessed gas distribution chamber portion, the first and second recessed gas distribution chamber portions **being sized, shaped and configured** in combination with the first and second sets of gas distribution apertures, respectively, **to maintain a .gas pressure distribution** being-configured to control a flow of the fuel gas to the contoured upper surface with at least first and second flow rates of fuel gas for ignition in the gas fireplace unit to provide flames having at least first and second flame characteristics different from each other and that **are sized and** move relative to the contoured upper surface and about the simulated log

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in a manner that **provide flames with color, movement and different sizes above different portions of the simulated coal members and simulate** simulates- a natural wood-burning fire.

**94. (Currently Amended)**

A burner assembly for burning a fuel gas from a gas source, comprising:

a base;

a non-metallic burner body having a lower portion with a recessed area, the burner body being spaced apart from and sealably coupled to the base to form a recessed gas distribution chamber configured to receive fuel gas therein from the gas source, the upper portion of the burner body having a contoured surface with a plurality of integral peaks and valleys shaped as simulated coal members, and the contoured surface forming a simulated-log-support surface, the upper portion of the burner body having gas distribution apertures extending from the gas distribution chamber to the contoured surface, the gas distribution apertures having different heights and being positioned and configured in combination with the recessed gas distribution chamber to **maintain a selected gas pressure in the gas distribution chamber and to** direct the fuel gas to the contoured surface with at least first and second flow rates of fuel for ignition adjacent to the contoured surface to provide flames with at least first and second flame characteristics different from each other, the burner body being constructed of a material that glows at selected color variations in the simulated coal members to simulate a burning and glowing coal ember bed in the base of a fire when the fuel gas is ignited adjacent to the contoured surface, the burner body with the contoured surface, the recessed gas distribution chamber and gas distribution apertures being sized and configured to create flames **of different sizes at different portions of the contoured surface and** that **have different sizes, colors and movement above different portions** **of** move relative to the contoured surface of the burner body and simulate a natural wood-burning fire; and

a simulated log supported by the simulated log-support surface adjacent to the simulated coal members.

**99. (Currently Amended)**

A burner assembly for burning a fuel gas, comprising: a burner pan; a separator connected to the burner pan; and

a burner body having upper and lower portions, the lower portion of the burner body sealably coupled to the burner pan, the burner body being out of direct engagement with the burner pan with the lower portion of the burner body being supported apart from the burner pan by the separator forming a gas distribution chamber between the burner pan and the burner body, the gas distribution chamber positioned to receive a flow of fuel gas therein, the upper portion of the burner body having a contoured surface forming simulated coal members, the upper portion of the burner body having a plurality of gas

distribution apertures extending from the gas distribution chamber to the contoured surface, the plurality of gas distribution apertures and the gas distribution chamber being configured to direct a flow of the fuel gas from the gas distribution chamber to the contoured surface with at least first and second flow rates of fuel for ignition adjacent to the contoured surface to provide flames with at least first and second flame characteristics different from each other for ignition adjacent to the simulated coal members, the burner body being constructed of a material that glows at selected color variations in the simulated coal members to simulate a burning and glowing coal ember bed in the base of a fire when the fuel gas is ignited adjacent to the contoured surface, **wherein the gas distribution chamber and the gas distribution apertures are sized and configured to maintain a desired gas pressure distribution within the gas distribution chamber during use to control the flow rate of the fuel through the gas distribution apertures to provide selected flame characteristics at different portions of the simulated coal members to provide flames with color, movement and different sizes above different portions of the simulated coal members and simulate a natural wood burning gas fire simulate a natural wood burning fire.**

**111. (Currently Amended)**

A burner assembly for burning a fuel gas from a gas source, comprising:  
a base;  
a separator adjacent to the base;  
a burner body having upper and lower portions, the lower portion of the burner body being spaced apart from the base of the burner pan by the separator with a gas distribution chamber therebetween and configured to receive a flow of fuel gas from the gas source, the lower portion of the burner body having a flat undersurface portion generally parallel to the base of the burner pan, the lower portion having a recessed underportion spaced apart from the base and recessed from the burner body's flat undersurface portion, the recessed underportion defining a portion of the gas distribution chamber, the upper portion of the burner body having a contoured surface forming simulated burning members, the burner body having a plurality of gas distribution apertures extending therethrough from the lower portion to the contoured surface of the upper portion, at least the upper portion of the burner body being constructed of a material that glows at selected color variations when the fuel gas is ignited adjacent to the contoured surface, **wherein the .gas distribution chamber and the .gas distribution apertures are sized and configured to maintain a desired .gas pressure within the .gas distribution chamber during use to control the flow rate of the fuel through the gas distribution apertures to provide flames when the fuel gas is ignited that have different sizes, color, and movement above different portions of the simulated burning members and simulate a natural wood burning fire.**

**122. (Currently Amended)**

A burner assembly for use with a simulated log and for burning a fuel gas from a gas source, comprising:

a base; and

a burner body having upper and lower portions, the lower portion of the burner body being sealably coupled to the base, the lower portion of the burner body having a recessed gas distribution chamber having a first chamber portion space apart from a second chamber portion and interconnected therewith by an intermediate chamber portion smaller than the first and second chamber portions, the first chamber portion being positioned to receive a flow of fuel gas therein directly from the fuel gas inlet so the fuel gas is distributed from the first chamber portion through the intermediate chamber portion to the second chamber portion, the upper portion of the burner body having a contoured surface simulating coal members and having a plurality of gas distribution apertures extending from the gas distribution chamber to the contoured surface, the plurality of gas distribution apertures and the first and second chamber portions being **sized and configured to provide a .gas pressure in the second chamber less than a .gas pressure in the first chamber to provide** a flow of the fuel gas to the contoured surface of the upper portion of the burner body with at least first and second flow rates of fuel for ignition adjacent to the contoured surface to provide flames with at least first and second flame characteristics different from each other, the burner body being constructed to provide flames, when the fuel gas is ignited, that have **different sizes, color, and movement above different portions of the simulated coal members and** move relative to the simulated log in a manner that resembles a natural wood-burning fire.

#### **128. (Currently Amended)**

A burner assembly for burning a fuel gas from a gas source, comprising:

a base;

a burner body having upper and lower portions, the lower portion of the burner body being sealably coupled to the base to form a gas distribution chamber therebetween, the lower portion of the burner body having a first chamber portion and a second chamber portion configured to allow the flow of fuel gas to move from the first chamber portion to the second chamber portion, the upper portion of the burner body having a contoured surface with a plurality of peaks and valleys to form a plurality of simulated coal members, a portion of the contoured surface forming a simulated-log support portion to support one or more simulated logs adjacent to the simulated coal members, the burner body having a plurality of gas distribution apertures extending therethrough from the lower portion to the contoured surface of the upper portion, the plurality of gas distribution apertures being positioned to direct a flow of the fuel gas to the contoured surface of the upper portion of the burner body for ignition, the burner body being constructed of a material that glows at selected color variations in the

simulated coal members when the fuel gas is ignited adjacent to the contoured surface; and a separator between base and the burner body that separates the burner body from the base; and

**an adhesive that adhesively couples the separator to at least one of the burner body and the base.**

### **131. (Currently Amended)**

A burner assembly for burning a fuel gas from a gas source, comprising: a base; a burner body having upper and lower portions, the lower portion of the burner body being sealably coupled to the base to form a gas distribution chamber therebetween, the lower portion of the burner body having a first chamber portion and a second chamber portion configured to allow the flow of fuel gas to move from the first chamber portion to the second chamber portion, the upper portion of the burner body having a contoured surface with a plurality of peaks and valleys to form a plurality of simulated coal members, a portion of the contoured surface forming a simulated-log support portion to support one or more simulated logs adjacent to the simulated coal members, the burner body having a plurality of gas distribution apertures extending therethrough from the lower portion to the contoured surface of the upper portion, the plurality of gas distribution apertures and the first and second chamber portions being configured to direct a flow of the fuel gas to the contoured surface of the upper portion of the burner body with at least first and second flow rates of fuel for ignition adjacent to the contoured surface to provide flames with at least first and second flame characteristics different from each other, the burner body being constructed of a material that glows at selected color variations in the simulated coal members when the fuel gas is ignited adjacent to the contoured surface; and a spacer between the lower portion of the burner body and the base; and **an adhesive that adhesively couples the spacer to at least one of the burner body and the base.**

### **135. (Currently Amended)**

A burner assembly for burning a fuel gas from a gas source, comprising: a base; a simulated log; and a burner body upper and lower portions, the lower portion of the burner body sealably coupleable to the base and having a recessed gas distribution chamber integrally formed therein, the upper portion of the burner body having the simulated log thereon and having a contoured surface with integral peaks and valleys resulting in the burner body having different thicknesses between the recessed gas distribution chamber and the contoured surface, the contoured surface being shaped to simulate coal members arranged in a simulated ember bed that glows below the simulated log, the burner body having gas distribution apertures extending from the lower portion to the contoured surface, the gas distribution apertures having a plurality of different heights; the gas distribution apertures and the gas distribution chamber being **sized and** configured **maintain a gas pressure in the gas distribution**

**chamber to control** flow of the fuel gas to the contoured surface of the upper portion of the burner body with at least first and second flow rates of fuel for ignition adjacent to the contoured surface to provide flames

with at least first and second flame characteristics different from each other, the burner body being configured to distribute fuel gas to the upper portion and around the simulated log to provide flames having **size**, color variations and movement **above different portions of the simulated ember bed and simulate** a natural wood-burning fire.

#### **142. (Currently Amended)**

A burner assembly for burning a fuel gas from a gas source, comprising: a base; a separator adjacent to the base; a burner body having upper and lower portions, the lower portion of the burner body being spaced apart from the base by the separator with a gas distribution chamber therebetween and configured to receive a flow of fuel gas from the gas source, the lower portion of the burner body having a flat undersurface portion generally parallel to the base, the lower portion having a recessed underportion spaced apart from the base and recessed from the burner body's flat undersurface portion, the recessed underportion defining a portion of the gas distribution chamber, the upper portion of the burner body having a contoured surface forming simulated burning members, the burner body having gas distribution apertures extending therethrough from the lower portion to the contoured surface of the upper portion, the gas distribution apertures have open upper ends positioned in different planes, wherein a selected group of the gas distribution apertures are concentrated relative to each other to provide a selected flame shape when the fuel gas flowing through the concentrated group of gas distribution apertures is ignited adjacent to the upper portion of the burner body, the upper portion of the burner body being constructed of a material that glows at selected color variations when the fuel gas is ignited adjacent to the contoured surface; **an adhesive that adhesively couples the separator to at least one of the burner body and the base;**

and a simulated log adjustably positioned on the burner body adjacent to the simulated burning members.

The following examiner's action addresses the scope of the claimed invention now present in the amended claims.

#### **Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 50-146** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 46, in line 7, there is no proper antecedent basis for “the base”.

In claim 46, line 27-28, the recitation “... the second gas distribution chamber portion different to control ...” is confusing since it is unclear with respect to what element the term “different” is intended to refer.

In claim 46, line 34, the word “diffrent” should be - - different - - .

Claim 46 is vague and indefinite since it is unclear what relationship the simulated “coal” members of the contour surface (line 13) have with the have with or necessarily relate to the “simulated bed of glowing embers (line 37) underneath the simulated logs. That is, since applicant’s disclosure appears to equate the term “coal” with the term “embers” (see page 7, last paragraph: “As best seen in Figures 7, 8, and 9, the contoured upper surface 17 includes a plurality of peaks 62 and valleys 64 that form a plurality of simulated coal or ember members 66 having various selected sizes.”). Accordingly, the claim is vague and indefinite due to the lack of consistent terminology and/or the claim fails to provide a necessary nexus between the term “coal” and “ember”. It is recommended that the applicant substitute the term “ember” for the term “coal” to avoid any possible confusion between applicant’s meaning of the term “simulated coal” as a “simulated ember” (i.e.- hot coals), as in charcoal. Rather than being in the shape of simulated “natural coal fuel”.

Claim 46 (last paragraph) is vague and indefinite since it is unclear what aspect of the burner body necessarily permits the burner body to be “configured to distribute the fuel gas at selected rates and volumes ...”. It appears applicant is attempting to claim that the burner body to be is configured to distribute the fuel gas at selected rates and volumes due to the different flow rates resulting from the first and second selectively grouped and configured distribution apertures associated with the respective first and second gas distribution chambers. The claim lacks a necessary nexus.

All claims should be reviewed for similar informalities.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims: Rejected under 35 U.S.C. 103**

**Claims 46-54, 64-118, 122, 123 and 125** are rejected under 35 U.S.C. 103(a) as being unpatentable over **JP 63- 140211** (newly cited) in view of **FR 2629178 (ARRIBAS)** (of record; See the English language translation), **DE 43 29 194** (newly cited), **GB002068106 (ROSIEK et al)** and **GB002035545 (PALAU)**.

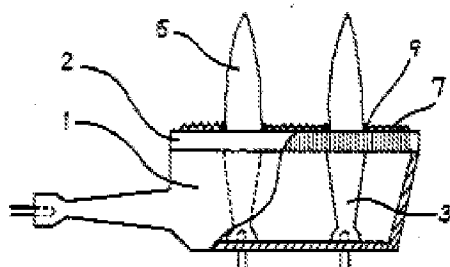
**JP 63- 140211** shows and discloses a burner assembly for burning a fuel gas from a gas source, comprising:

- a base (1);
- a separator or distribution fence (3) adjacent to the base;
- a burner body (2) having upper and lower portions, the lower portion of the burner body being spaced apart from the base by the separator with a gas distribution chamber (at 1 and 3) therebetween and configured to receive a flow of fuel gas from the gas source, the lower portion of the burner body having a flat undersurface portion generally parallel to the base,
- the burner body having gas distribution apertures (8) extending therethrough from the lower portion to the upper surface of the upper portion,
- the upper portion of the burner body being constructed of a material (“red-heat part 7 looking like ember”; see English language abstract) that glows at selected color variations when the fuel gas is ignited adjacent to the upper surface; and

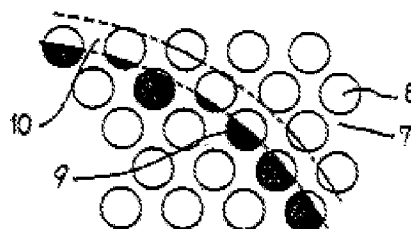
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-a simulated log (4) positioned on the burner body adjacent to the simulated burning members.

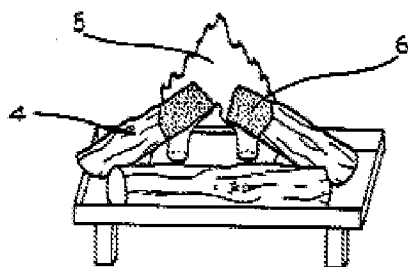
JP 63- 140211 shows and discloses:



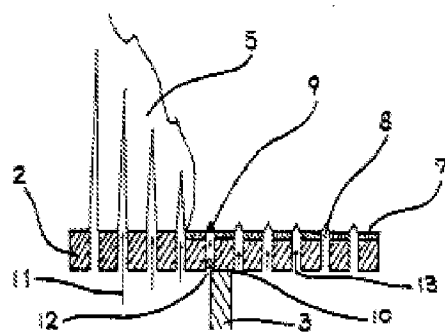
第 1 圖



第 2 圖



第 3 圖



第 4 圖

# ABSTRACT:

**PURPOSE:** To make a ceramic plate looks like ember by red-heating the plate and also produce flames as if solid fuel is burning by installing different burners besides a red-heat burner for the ceramic plate.

**CONSTITUTION:** When a red-heat burner 1 is ignited, a ceramic plate 2 makes surface burning and is red-heated to form a red-heat part 7 looking like ember. When burners 3 for forming flames are ignited, flames 5 are formed and heat pseudowoods 4 and forms the red heat part 6 of the pseudowoods. At the same time, an excessive input is charged to form the flames at the burners 3 which is in contact with the plate 2 and by the combination of flame holding effect carried by the ceramic plate itself and the wing fire 9 effect of through holes 8 where the ceramic plate and the inner circumferential part at the tip of the burners for forming flames are in contact to close the through holes in unstable shape, a lift phenomenon does not take place, and flames are produced as if solid fuel is burning.

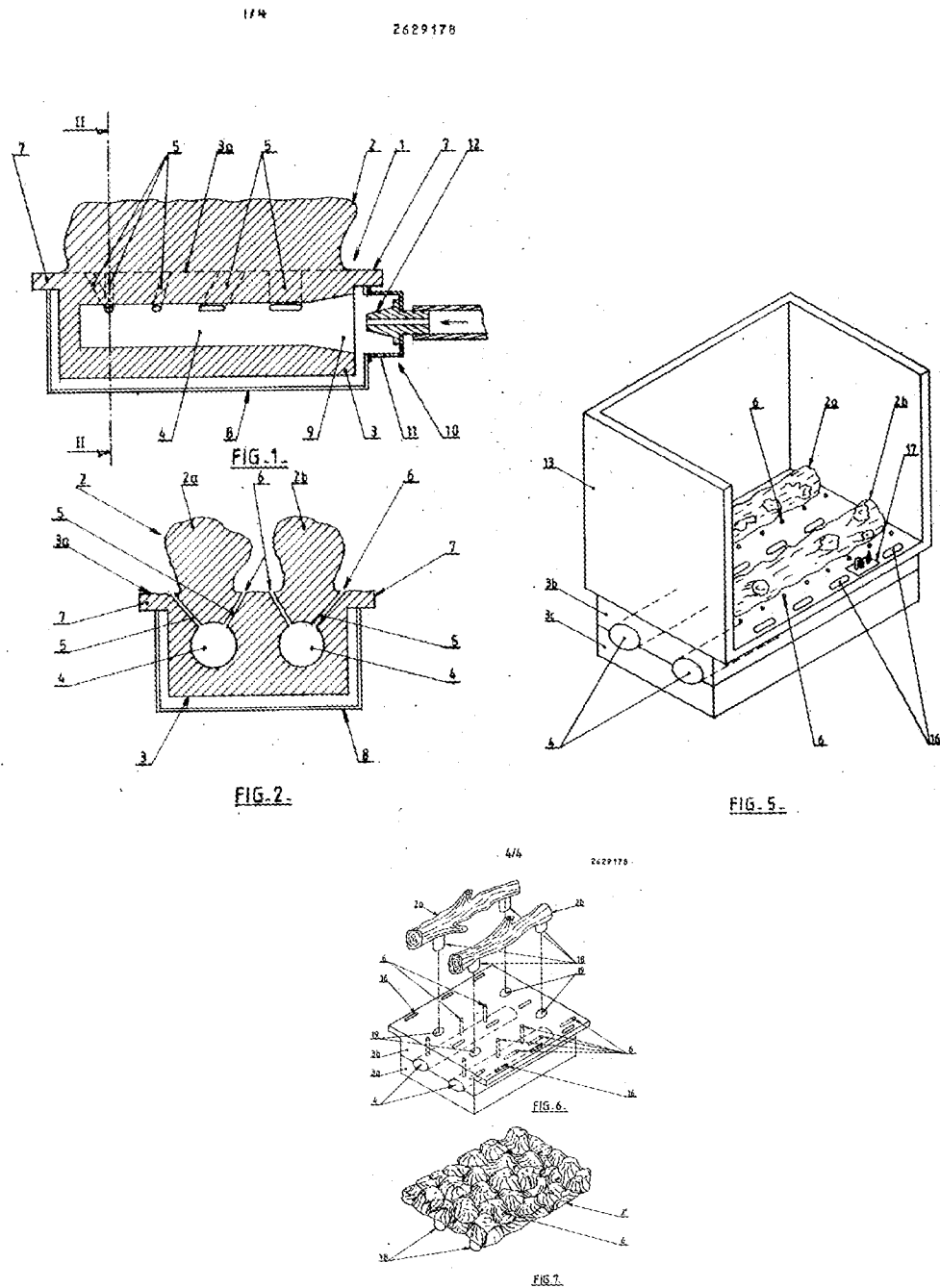
JP 63- 140211 shows and discloses the invention substantially as set forth in the claims with possible exception to:

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- the lower portion having a recessed underportion spaced apart from the base and recessed from the burner body's flat undersurface portion, the recessed underportion defining a portion of the gas distribution chamber,
- the upper portion of the burner body having a contoured surface forming simulated burning members,
- the gas distribution apertures have open upper ends positioned in different planes,
- wherein a selected group of the gas distribution apertures are concentrated relative to each other to provide a selected flame shape when the fuel gas flowing through the concentrated group of gas distribution apertures is ignited adjacent to the upper portion of the burner body; and
- an adhesive that adhesively couples the separator to at least one of the burner body and the base;

**FR002629178 (ARRIBAS)** teaches from applicant's same gas fueled fireplace field of endeavor an arrangement including a non-metallic ceramic fiber (see page 2, lines 19-30) burner body having a lower portion or surface (at 14; figure 3,4) and an upper contoured portion or surface (2a, 2b, 3a, 3b) having a substantially flat portion (3, 3a) forming a simulated-log-support surface adjacent to simulated coal members (3a; figure 2), the simulated-log-support surface having guide members (19) being configured to align simulated-logs (2a,b)) relative to the upper portion of the burner body. The non-metallic ceramic burner body lower portion (13; Figure 9) of the burner body sealably coupled to a base (3c). It is further noted that the apertures of the first set of apertures and the second set of apertures are differently distributed (i.e. – See figure 3 showing a mirror image orientation of the longer and shorter passages (5, 6)) relationship along the gas supply manifold therefore the separate recessed manifold portions (4) of would necessarily be different and any flame(s) produced by the first set of apertures **FR002629178 (ARRIBAS)** would necessarily be characteristically different flame(s).

**FR002629178 (ARRIBAS)** also shows and discloses combustion air holes (16) passing through the burner body (3,3b) and arranged out of fluid communication with the gas distribution chamber (4). The flame ports (5, 6) of **FR002629178 (ARRIBAS)** are arranged to permit the flames to move along the contoured surface of the simulated fuel features.



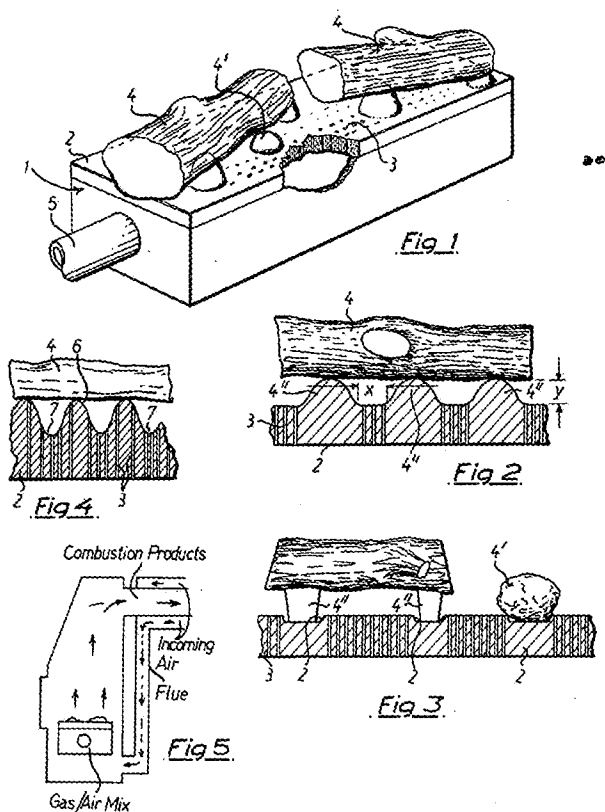
**GB002068106 (ROSIEK ET AL)** teaches providing a non-metallic ceramic burner body with gas distribution apertures (3) extending from a flat lower portion or undersurface to a contoured upper portion or surface (4', 4'') of a plate-like member; wherein the contoured surface is shaped to simulate a plurality of coal/ember members arranged in a simulated ember bed and defines a plurality of integral peaks (6) and valleys (7). **GB002068106 (ROSIEK ET**

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**AL)** discloses the spacing of peaks (6) and troughs (7) are arranged to “ensure the hot fuel bed simulation” (see page 3, line 2), and an appearance of burning fuel is produced by “hot wispy flames around the coal and/or log elements (4, 4’) to thus enhance the realism of the fire” (see page 3, lines 13-14). In this regard, it is noted that the phrase “realism of the fire” would necessarily be understood by a person having ordinary skill in the art of solid fuel effect, or simulated, gas fires to be glowing at selected color variations since it is well known that color variations are necessarily displayed in real solid fuel fires. **GB002068106 (ROSIEK ET AL)** also discloses (page 3, lines 27-34) that the log and/or coal elements 4, 4’ are coated with solid organic material or impregnated or made with materials to produce selected color variations obtained from real fuel fires. **GB002068106 (ROSIEK ET AL)** shows gas aperture outlets at a plurality of different planes and different spacing (see figure 4).

**GB002068106 (ROSIEK ET AL)** shows and discloses:

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The gas fire burner illustrated in Figures 1 and 2 of the accompanying drawings comprises a plenum chamber 1, the top wall of which is a rectangular plate-like member 2 made of ceramic material, through which a plurality of regularly spaced apart gas/air mix feed bores 3 extend.

Alternatively the feed bores 3 can be randomly spaced apart. Each feed bore 3 is small in diameter as compared to its length so that any gas/air mix passing along the feed bores, burns in the region of the outlet ends of the bores or just thereabove.

Located above the planar surface of member 2 are a plurality of simulated log elements 4, each being made of a ceramic, preferably ceramic fibre. Alternatively or in addition to the coal elements ceramic coal elements 4' can be used.

The log elements 4 are supported on projections 4'' which are integrally formed with member 2 and take the form of simulated coal elements.

These projections 4'' are so designed as to provide a spacing 'y' between the log elements 4 and the surface of member 2, i.e. the gas outlets, of between 12mm and 20mm. If spacing 'y' is less than 12mm then the gas can burn noisily and complete combustion does not necessarily take place.

Also, the desired visual effect of a hot fuel bed is not always obtained. If spacing 'y' is greater than approximately 20mm, again the desired visual effect is not obtained as the desired temperature build-up is not readily evident. Further, for complete combustion to occur the projections 4'' are spaced apart by a distance 'x' which should not be less than 7mm. Also, for continuous stable flames at least three gas/air mix feed bores 3 must open between any two projections 4''.

In the alternative embodiments of the present invention shown in Figures 3 and 4 of the accompanying drawings the same reference numerals have been used as in Figures 1 and 2 for equivalent features.

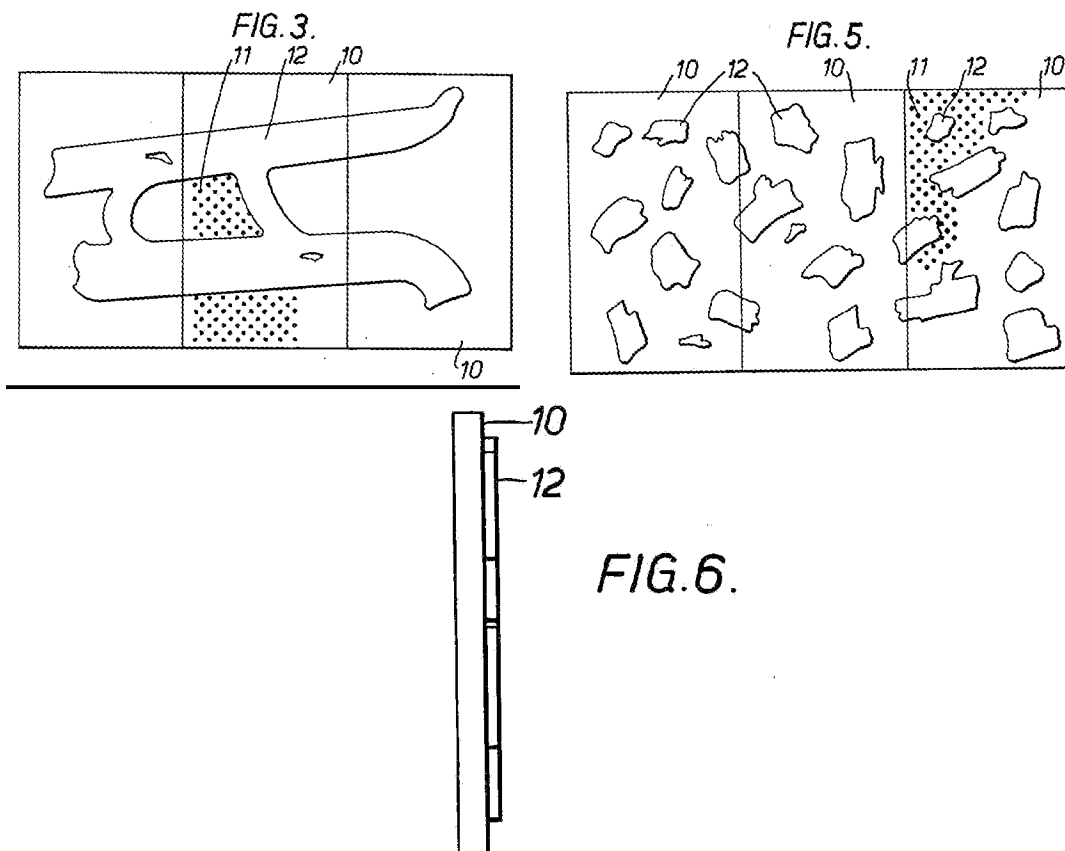
In the embodiment of Figure 3, the simulated log elements 4 have support projections 4'' integrally formed therewith, the projections 4'' locating in recess 2' in the surface of planar member 2. These projections 4'' maintain log elements 4 at the 'x' and 'y' spacings of Figures 1 and 2 thus providing the required hot fuel bed simulation. Additional simulated coal elements 4' can also be provided, these coal elements 4' being retained in recesses in the planar member 2 and merely adding to realism or acting gas supports for log elements as per Figures 1 and 2. Again a minimum of three gas/air mix feed bores are provided between supports, this being necessary for stable flames.

In the embodiment of **Figure 4** the member 2 has an undulating surface the log elements being supported on the peaks 6 and the troughs 7 being deep enough to provide the desired 'x' and 'y' spacings of figures 1 and 2 to thus ensure the hot fuel bed simulation.

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**GB002035545 (PALAU)** teaches providing a burner body with gas distribution apertures (3) extending from a flat lower portion or undersurface to a contoured upper portion or top surface (12) wherein the contoured surface is shaped to simulate a plurality of coal/ember members arranged in a simulated ember bed. **GB002035545 (PALAU)** acknowledges (see page 1, lines 77-98) that the result of the contoured surface is to produce “shades of varying brightness as a result of the temperature difference” wherein the colors vary “from bright red at the periphery of protuberances 12 to near-black in the most central region of the protuberance, resulting in the optical effects similar to burning logs”.

**GB 2 035 545A (Palau)** shows and discloses.



The protuberances 12 are very thin (see Fig. 6) at the front they have a smooth area free from apertures such as those in the rest of the plate. As already explained, the apertures 11 serve to permit combustion of gas in the heating plate 10. The region containing the apertures 11 becomes a very bright red when the gas burns. The

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**result is that regions 12 assume shades of varying brightness as a result of the temperature difference in the aforementioned region, the colours varying from a bright red at the periphery of protuberances 12 to near-black in the most central region of the protuberance, resulting in optical effects similar to burning logs. As can be seen, the centre of one of the protuberances (e.g. in Fig. 3) contains a region formed with the same apertures 11 as in the rest of the plate 10. The resulting protuberance 12 has a wide range of shades, thus increasing its decorative effect.**

In regard to **claims 46-54, 64-118, 122, 123 and 125**, for the purpose of providing an alternative burner plate arrangement it would have been obvious to a person having ordinary skill in the art to modify the burner plate of **JP 63- 140211** include a contoured upper surface forming simulated burning members, as well as forming the simulated log or coal members to be alternatively integrally, adjustable or removable, in view of the teaching of **FR002629178 (ARRIBAS)**. And, for the purpose of providing an alternative burner plate arrangement it would have been obvious to a person having ordinary skill in the art to modify the burner plate of **JP 63- 140211** include a contoured upper surface forming simulated burning members, the gas distribution apertures have open upper ends positioned in different planes wherein a selected group of the gas distribution apertures are concentrated relative to each other, as well as forming the simulated log or coal members to be adjustable (repositionable), or removable, in view of the teaching of **GB002068106 (ROSIEK ET AL)**. Further in regard to **claims 111-118**, for the purpose of providing an alternative burner plate arrangement it would have been obvious to a person having ordinary skill in the art to modify the burner plate of **JP 63- 140211** include a recessed underportion, a contoured upper surface forming simulated burning members, as well as forming the simulated log or coal members to be alternatively integrally, adjustable or removable, in view of the teaching of **FR002629178 (ARRIBAS)**. Also, in regard to **claims 50-54, 64-118, 122, 123 and 125** with respect to the recitations such as "...the upper portion of the burner body being constructed of a material that glows at selected color variations when the fuel gas is ignited...", the upper surface material (7) of the **JP 63- 140211** ceramic plate, being formed in a manner to simulated embers would alone meet the conditions of this claim since it produces a selected "red-heat". Even so, a person having ordinary skill in the art would understand that a material formed to simulate an ember effect would necessarily glow at selected color variations. This is further evidenced by the prior art reference of **GB002035545 (PALAU)** ("*...regions 12 assume shades of varying brightness as a result of the temperature difference in the aforementioned region, the colours varying from a bright red at the periphery of protuberances 12 to near-black in the most central region of the protuberance.*").

In regard to **claim 52**, Official Notice is taken that vermiculite is a well known suitable refractory material (see for example **GB002275331A**; **US003284209**; **GB002258723A**) used in forming simulated fires. Therefore, in view of that which is well known in the art, it would have been obvious to a person having ordinary skill in the art to for the burner element from vermiculite.

**Claims: Rejected under 35 U.S.C. 103**

**Claims 55-63, 124 and 128-144** are rejected under 35 U.S.C. 103(a) as being unpatentable over **JP 63- 140211** (newly cited) in view of **FR 2629178 (ARRIBAS)**(of record; See the English language translation), **DE 43 29 194** (newly cited), **GB002068106 (ROSIEK et al)** and **GB002035545 (PALAU)**.

**JP 63- 140211** shows and discloses a burner assembly for burning a fuel gas from a gas source, comprising:

- a base (1);
- a separator or distribution fence (3) adjacent to the base;
- a burner body (2) having upper and lower portions, the lower portion of the burner body being spaced apart from the base by the separator with a gas distribution chamber (at 1 and 3) therebetween and configured to receive a flow of fuel gas from the gas source, the lower portion of the burner body having a flat undersurface portion generally parallel to the base,
- the burner body having gas distribution apertures (8) extending therethrough from the lower portion to the upper surface of the upper portion,
- the upper portion of the burner body being constructed of a material (“red-heat part 7 looking like ember”; see English language abstract) that glows at selected color variations when the fuel gas is ignited adjacent to the upper surface; and
- a simulated log (4) positioned on the burner body adjacent to the simulated burning members.

**JP 63- 140211** shows and discloses the invention substantially as set forth in the claims with possible exception to:

- the lower portion having a recessed underportion spaced apart from the base and recessed from the burner body's flat undersurface portion, the recessed underportion defining a portion of the gas distribution chamber,
- the upper portion of the burner body having a contoured surface forming simulated burning members,
- the gas distribution apertures have open upper ends positioned in different planes,
- wherein a selected group of the gas distribution apertures are concentrated relative to each other to provide a selected flame shape when the fuel gas flowing through the concentrated group of gas distribution apertures is ignited adjacent to the upper portion of the burner body; and
- an adhesive that adhesively couples the separator to at least one of the burner body and the base.

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**DE 43 29 194** (newly cited) teaches (see the English language abstract), from applicant's same gas fire field of endeavor, applying a sealing silicone adhesive to burner portions (3) contacting the underside of a ceramic plate (7a).

#### ABSTRACT:

The invention describes a gas-burner combination and a method for its ignition, a hyperstoichiometrically premixing burner with a flame outlet surface of perforated ceramic being ignited by a likewise hyperstoichiometrically premixing pilot burner integrated into the radiant main burner. The pilot burner itself is ignited, in a known manner, piezoelectrically, with battery ignition or the like.

The radiant main burner and pilot burner utilize the same perforated ceramic plate as flame outlet surface and form a constructional and functional unit.

In a burner described as an exemplary embodiment, the distribution space 3 of the **pilot burner I** is integrated into the distribution space 6 of the radiant main burner II. The mixing tube 2 of the pilot burner I is screwed into the distribution space 3 of the pilot burner I through the wall of the distribution space 6 of the radiant main burner II. The flame outlet **surface 7a is adhesively bonded** into the distribution space 6 of the radiant main burner II by means of **silicone adhesive**. The **sealing** between the distribution space 3 of the **pilot burner I** and **flame outlet surface 7a** is **likewise** effected by means of **silicone adhesive**, thereby at the same time guaranteeing a gastight separation of radiant main burner II and pilot burner I.

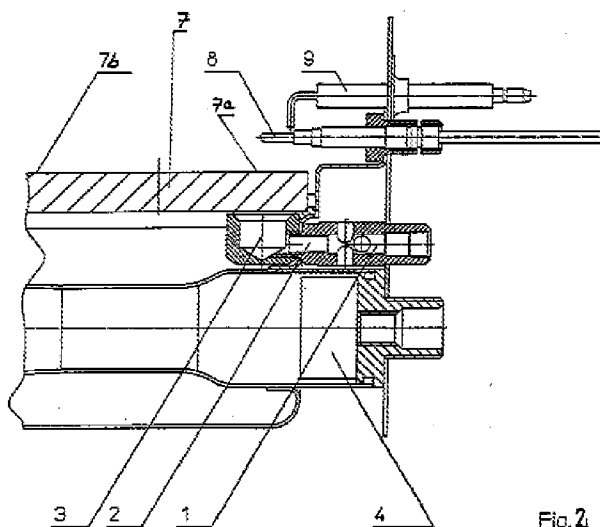


Fig. 2

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In regard to **claims 124 and 128-134**, for the purpose of providing an alternative burner plate arrangement it would have been obvious to a person having ordinary skill in the art to modify the burner plate of **JP 63- 140211** include a contoured upper surface forming simulated burning members, as well as forming the simulated log or coal members to be alternatively integrally, adjustable or removable, in view of the teaching of **FR002629178 (ARRIBAS)**. And, for the purpose of providing an alternative burner plate arrangement it would have been obvious to a person having ordinary skill in the art to modify the burner plate of **JP 63- 140211** include a contoured upper surface forming simulated burning members, the gas distribution apertures have open upper ends positioned in different planes wherein a selected group of the gas distribution apertures are concentrated relative to each other, as well as forming the simulated log or coal members to be adjustable (repositionable), or removable, in view of the teaching of **GB002068106 (ROSIEK ET AL)**. In regard to **claims 55-63, 124 and 128-134**, for the purpose of providing any necessary fluid tight seal between the various burner portion, it would have been obvious to a person having ordinary skill in the art to modify the burner plate of **JP 63- 140211** to include a sealing silicon adhesive between the separator (3) and burner plate (2), in view of the teaching of **DE 43 29 194**.

In regard to **claims 135-144**, for the purpose of providing an alternative burner plate arrangement it would have been obvious to a person having ordinary skill in the art to modify the burner plate of **JP 63- 140211** include a recessed underportion, a contoured upper surface forming simulated burning members, as well as forming the simulated log or coal members to be alternatively integrally, adjustable or removable, in view of the teaching of **FR002629178 (ARRIBAS)**. And, for the purpose of providing an alternative burner plate arrangement it would have been obvious to a person having ordinary skill in the art to modify the burner plate of **JP 63- 140211** include a contoured upper surface forming simulated burning members, the gas distribution apertures have open upper ends positioned in different planes wherein a selected group of the gas distribution apertures are concentrated relative to each other, as well as forming the simulated log or coal members to be adjustable (repositionable), or removable, in view of the teaching of **GB002068106 (ROSIEK ET AL)**. Also, in regard to **claims 135-144**, for the purpose of providing any necessary fluid tight seal between the various burner portion, it would have been obvious to a person having ordinary skill in the art to modify the burner plate of **JP 63- 140211** to include a sealing silicon adhesive between the separator (3) and burner plate (2), in view of the teaching of **DE 43 29 194**.

Also, in regard to **claims 124 and 128-144**, with respect to the recitation "...the upper portion of the burner body being constructed of a material that glows at selected color variations when the fuel gas is ignited...", the upper surface material (7) of the **JP 63- 140211** ceramic plate, being formed in a manner to simulated embers would alone meet the conditions of this claim since it produces a selected "red-heat". Even so, a person having ordinary skill in the art would understand that a material formed to simulate an ember effect would necessarily glow at selected color variations. This is further evidenced by the prior art reference of **GB002035545**

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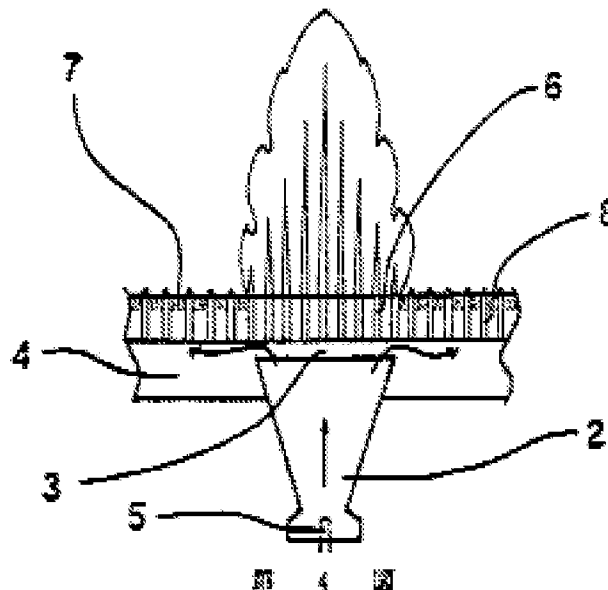
(PALAU) (“...regions 12 assume shades of varying brightness as a result of the temperature difference in the aforementioned region, the colours varying from a bright red at the periphery of protuberances 12 to near-black in the most central region of the protuberance.”).

In regard to **claims 136-138**, for the purpose of providing means to further enhance the simulated flame effect, it would have been obvious to a person having ordinary skill in the art to modify **JP 63- 140211** to include combustion air holes extending therethrough, in view of the teaching of **FR002629178 (ARRIBAS)**(see 16).

### Conclusion

See the attached USPTO form 892 for prior art made of record and not relied upon which is considered pertinent to applicant's disclosure.”

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**ABSTRACT:**

**PURPOSE:** To produce different burning conditions with a flame and parts looking like ember by installing a gas passage with an orifice function to a diffusion part at the tip part of a mixing tube faced to a ceramic plate.

**CONSTITUTION:** At the circumferential inside of the tip end of a mixing tube, a fixed volume of gas is spouted through penetrating holes 6 for forming a flame placed in a ceramic plate located above the mixing tube 2. The back surface of the plate 1 is not equipped with tapers for stream smoothening but flat at lower parts, and a part of mixed gas colliding with the back surface makes turbulent flows and is reduced in velocity and pressure; in that condition, the gas is introduced into a diffusion part through a gas passage 3. The gas is passed from penetrating holes 8 for red heating locating above the diffusion part 4 and burnt on the surface of the plate 1 to form red heat parts 7. The gas passage functions as an orifice for the mixed gas with a high load and the quantity of the mixed gas can be adjusted to the appropriate one by adjusting the gap of the gas passage. The mixed gas spouting through the holes 6 forms a conical shape and makes perfect combustion without lift.

**DE 28 51 019 (Douglas et al)**

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Offenlegungstag: 31. Mai 1979

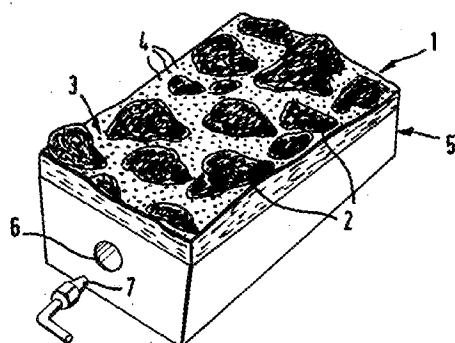


FIG. 1

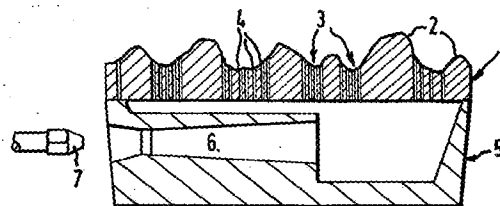


FIG. 2

**GB 2 275 331 (Fleming)**

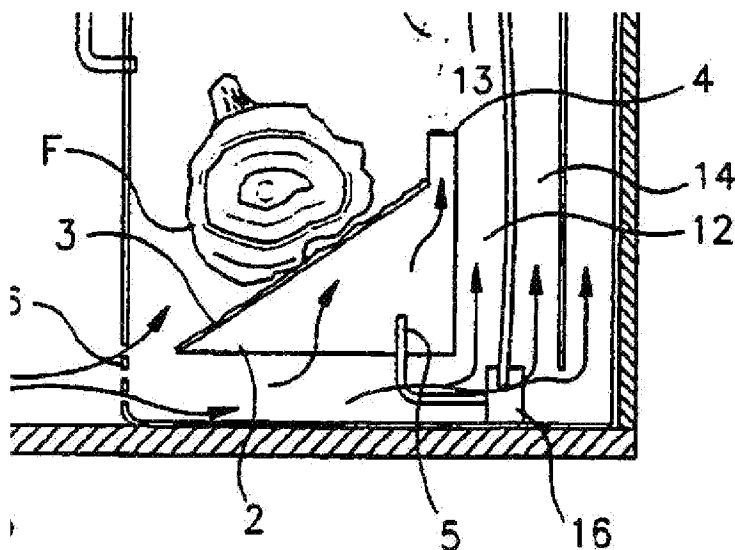
“Whilst the illustrated embodiment is described with reference to gas fueling or a flammable fluid, the invention is not limited thereto, and the invention is applicable across a wide range of fuel types.

The burner apparatus 1 preferably includes a burner housing 2 which is preferably formed in sheet steel and provides an inclined front face 3 which is, in a preferred form of

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the invention, arranged in a bed of vermiculite or other material which may in certain circumstances provide the appearance of embers, particularly when percolated with gas.

The housing 2 preferably incorporates a fuel assembly F which is provided as an artificial log, for example formed in a ceramic material and the like according to substantially known techniques.”

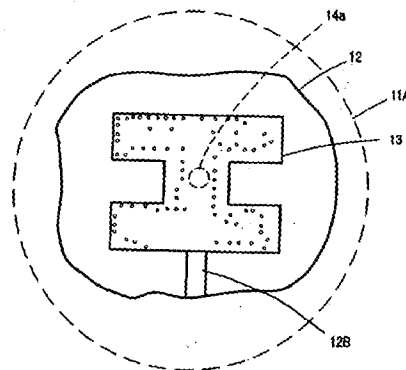


**GB002334328 (SHIMEK et al)** show (Figures 1, 2, 4, 5, 9) and discloses (see page 8, line 21 - page 9, line 13) a burner assembly for burning a fuel gas from a gas source (17) including:

- a base (11, 11A) with a gas inlet aperture (14);
- a burner body including:
  - an non-metallic ceramic burner body upper portion (12; i.e. -“ceramic fiber top”);
  - a non-metallic ceramic burner body lower portion (13; Figure 9) of the burner body sealably coupled (i.e.- “a bead of adhesive is applied around the manifold area close to the outside perimeter of the top unit”) to the base and having an “H-shaped” gas manifold area ( at 13; Figure 9) with first (not referenced; e.g. – any one portion of the H-shaped manifold area) and second (not referenced; e.g. – any one portion of the H-shaped manifold area) recessed (see page 9, lines 3-6; i.e. – “It will be understood that the H-shaped area is **recessed** into the ceramic fiber top 12 and provides the aforementioned and described hollow manifold 13”) gas distribution chamber portions formed therein;
- a first set (5) of the gas distribution apertures extending through the burner body to a first recessed gas distribution chamber portion (4);

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- a second set (6) of distribution apertures extending through the burner body to the second recessed gas distribution chamber portion (4);
- a spacer contacting and therefore adjacent to the base (not referenced; i.e. – the downward extending perimeter portion adhesively bonded (25) to the base (11, 11A) and forming the sealed recessed gas manifold area (13));
- a gasket forming silicon adhesive (25) positioned between the burner body (12) and base (11, 11A);
- the upper portion of the burner body having a contoured surface (i.e. – “The novel gas burner unit is provided with a three dimensional contoured surface in the ceramic fiber top and a pattern of burner jets extending through the ceramic fiber top into the gas manifold for creating a desired gas flame pattern”; see page 3, lines 7-11) with a plurality of integral peaks and valleys (see Figures 1, 2, 4, 5, 9), the contoured surface being;
- as distribution apertures (24) extending from the lower portion to the contoured surface wherein the;
- a first set of the gas distribution apertures extending through the burner body to the first recessed gas distribution chamber portion (i.e. – that portion of the ceramic matrix communicating with a respective one of the recessed portions of the H-shaped manifold recess);
- a second set of distribution apertures extending through the burner body to the second recessed gas distribution chamber portion (i.e. – that portion of the ceramic matrix communicating with a respective other one of the recessed portions of the H-shaped manifold recess);
- a smaller intermediate chamber portion (not referenced; i.e. – the smaller chamber portion bridging the adjacent parallel and relatively longer chamber portions of the “H-shaped” manifold (13; figure 9);
- wherein the gas distribution apertures are positioned to direct a flow of the fuel gas to the contoured upper surface for ignition; and
- a simulated log (see claim 14) supported adjacent to the simulated ember bed.

**Figure 9**

It is further noted that the H-shaped manifold (13; figure 9) shows the first set and second set of apertures to be randomly positioned along the surface of their respective manifold H-shaped manifold sections. It is further noted that the number of apertures in the first set is shown to be different from the number of apertures of the second set. Because the apertures of the first set of apertures and the second set of apertures are differently distributed along the gas supply manifold and differ in number the flow rate of fuel flowing through respectively by the first set and second set of apertures would necessarily be different and any flame(s) produced by the first set of apertures would necessarily be characteristically different from any flame(s) produced by the second set of apertures. **GB002334328 (SHIMEK et al)** states that the silicon adhesive is applied as “a bead of adhesive” around the manifold area and the same adhesive is used to “seal” around the gas pipe (page 9, lines 7-13) wherein the “means for connecting and sealing said base unit to said ceramic fiber top comprises high temperature silicon base adhesive” (see claims 2 and 3). Given that **GB002334328 (SHIMEK et al)** clearly intends the silicon adhesive to not only connect or bond the burner sections but is also intended as a mean for “sealing”, the examiner maintains the position that the silicon adhesive of **GB002334328 (SHIMEK et al)**, in fact, is a “gasket” in the same manner broadly recited in applicant’s claims since it is used to make a joint fluid-tight. And, since **GB002334328 (SHIMEK et al)** directs the silicon adhesive to be applied as “a bead of adhesive”, and not in a manner fully coating the mating surfaces, it follows that the lower portions of the burner body not in contact with the “bead” of silicon adhesive are the structural and functional equivalent to applicant’s broadly claimed “burner body having edge portions separate from the spacer and spaced apart from the burner pan with the lower portion being supported apart from burner body, Due to the material thickness of the silicon adhesive “bead”.

#### **USPTO CUSTOMER CONTACT INFORMATION**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl D. Price whose telephone number is (571) 272-4880. The examiner can normally be reached on Monday through Friday between 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on (571) 272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CARL D. PRICE/

Primary Examiner, Art Unit 3749